

## Abstracts

71

**ODS:** Data from recently published outcome studies was incorporated into TreeAge software to construct the one-year decision analysis model. The primary cost drivers thought to influence cost-effectiveness were complicated GI bleeds, hospitalizations, and symptomatic ulcers, as well as differences in renal toxicity, dyspepsia, anemia, hypertension and edema. Sensitivity analysis was performed on all major indices based on variations in results found in reviewed studies. **RESULTS:** Overall rates of adverse events were similar for all agents (75% NSAIDs, 72% celecoxib, 78% rofecoxib), however celecoxib was associated with less events relating to primary cost drivers. These differences are attributed mainly to variances among adverse event probabilities for hypertension and edema (NSAIDs 4.7%, 4.4%, celecoxib 1.6%, 2.9%, rofecoxib 6.4%, 6.3%, respectively). Cost of drug treatment per year for NSAIDs, celecoxib, and rofecoxib are \$36.00, \$466.00, and \$482.00, respectively, based on Federal Supply Schedule (FSS) pricing. **CONCLUSIONS:** Based on preliminary data, therapy with COX-2 inhibitors does not appear to be cost-effective to prescribe for all osteoarthritic patients within the VA Health care System. Results may be extrapolated to other health care settings assuming medical costs are similar.

**PAM14**

### **TREATMENT WITH LEFLUNOMIDE IMPROVES THE UTILITY OF PATIENTS WITH ACTIVE RHEUMATOID ARTHRITIS: AN APPLICATION OF THE SF-6D**

Crawford B<sup>1</sup>, Brazier JE<sup>2</sup>, Strand V<sup>3</sup>, Doyle J<sup>4</sup>

<sup>1</sup>Mapi Values, Boston, MA, USA; <sup>2</sup>University of Sheffield, Sheffield, UK; <sup>3</sup>Stanford University School of Medicine, Palo Alto, CA, USA; <sup>4</sup>Aventis Pharmaceuticals, Parsippany, NJ, USA

**OBJECTIVES:** To evaluate the changes in patient utility with treatment of active rheumatoid arthritis (RA) with leflunomide (LEF), placebo (PBO) or methotrexate (MTX). **METHODS:** A 52 week multicenter double-blind controlled trial comparing treatment with leflunomide, methotrexate or placebo in patients with active rheumatoid arthritis was used to derive patient utilities. Short Form 36 (SF-36) data were used to generate utility scores using the algorithm developed by Brazier et al (1999). These utilities would reflect general population values and would not be specific to an RA population. Inclusion in the utility analysis required consistent SF-36 responses, a baseline and at least one other completed assessment, and valid responses to derive the SF-6D utilities. The area under the curve was calculated for completers and the intent-to-treat population in order to estimate incremental quality adjusted life years (QALYs) for the treatments. **RESULTS:** The clinical study population consisted of 182 LEF, 180 MTX and 118 PBO patients. The population used for the utility analysis consisted of 165 LEF, 164 MTX and 114 (PBO). Baseline utility values were comparable between groups, ranging from 0.622 to 0.637. Incremental QALYs gained for

completers was statistically significantly superior for LEF over PBO ( $p = 0.0317$ ) and MTX ( $p = 0.0130$ ). Treatment with LEF resulted in an incremental gain of 0.084 QALYs, starting from a baseline of 0.622. Similar results were seen with the intent-to-treat population. **CONCLUSIONS:** Treatment of RA with LEF statistically improves patient health state utility values and QALY gain over MTX and PBO.

**PAM15**

### **EVALUATING DIRECT AND INDIRECT MEASURES OF UTILITY: STABILITY OF THE SF-6D IN A RHEUMATOID ARTHRITIS POPULATION**

Crawford B<sup>1</sup>, Brazier JE<sup>2</sup>

<sup>1</sup>Mapi Values, Boston, MA, USA; <sup>2</sup>University of Sheffield, Sheffield, UK

**OBJECTIVES:** To evaluate the stability and discriminative ability of direct and indirect measures of utility in a population of rheumatoid arthritis patients. **METHODS:** Clinical trial data was used to compare the stability of direct measures of utility (SG and VAS) to that from an indirect approach to utility development (SF-6D). SF-36 data were transformed to the SF-6D utility using the algorithm developed by Brazier et al.(1999) based on values of the general UK population. These data were compared to SG and VAS data collected in the same trial. Ability to discriminate across functional classes and variance around point estimates was examined. **RESULTS:** The SF-6D generated utilities that were consistently lower than the directly elicited SG and were closer to the VAS valuations. The standard deviations, however, were consistently smaller.

	Baseline	Week 24	Week 52
SG	0.7759 (0.2399)	0.8684 (0.1850)	0.8794 (0.1858)
VAS	0.5902 (0.1942)	0.7425 (0.1623)	0.7701 (0.1629)
SF-6D	0.6287 (0.1290)	0.7323 (0.1109)	0.7443 (0.1089)

**CONCLUSIONS:** The indirect measure of utility (SF-6D) was more stable in terms of variance of parameter estimates and was able to discriminate across functional classes. The reduced variance around these estimates enhances statistical testing and accurately reflects changes experienced by the patient.

**PAM16**

### **COST IMPACT OF COX-2 INHIBITORS IN A MANAGED CARE PLAN: IMPLICATIONS FOR FORMULARY DECISION-MAKING**

Atherly DE<sup>1</sup>, Fullerton DS<sup>2</sup>, Sturm LL<sup>2</sup>, Bryant A<sup>1</sup>, Sullivan SD<sup>1</sup>

<sup>1</sup>University of Washington, Seattle, WA, USA; <sup>2</sup>Regence BlueShield, Seattle, WA, USA

**BACKGROUND:** Regence BlueShield, a 1.2 million-member Washington health plan currently requires prior